

CLAIMS

What is claimed is:

1. An assembly for determining the configuration of a part, comprising:
a platform having a longitudinal axis for supporting and moving the part
5 along said longitudinal axis;
a first detection assembly for transmitting a first signal around and the
part in a direction transverse to said longitudinal axis and for receiving the transmitted
first signal passed around the part;
a controller for evaluating said first signal received from said first
10 detection assembly thereby determining a first configuration of the part; and
a second detection assembly for transmitting a second signal around and
the part in the direction transverse to the direction of said first signal and for receiving
the transmitted second signal around and the part;
said second detection assembly being operably connected to said
15 controller for determining a second configuration of the part whereby said controller
integrates said first and second signals for determining a third configuration of the part
thereby identifying the part being evaluated.
2. An assembly as set forth in Claim 1, wherein said controller includes a
20 comparative program for determining the three dimensional configuration of the part
from the first and second configurations.
3. An assembly as set forth in Claim 2, wherein said first detection assembly
determines the height of the part.

4. An assembly as set forth in Claim 3, wherein said second detection assembly determines the outer diameter of the part.

5. An assembly as set forth in Claim 4, wherein said second detection
5 assembly determines the inner diameter of the part.

6. An assembly as set forth in Claim 5, wherein said first and second signals include a beam of light.

10 7. An assembly as set forth in Claim 6, wherein said second detection assembly being spaced between said first detection assembly.

8. An assembly as set forth in Claim 7, wherein said second detection assembly includes a light emitter for transmitting said second signal.

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9. An assembly as set forth in Claim 8, wherein said light emitter being positioned above said platform.

10. An assembly as set forth in Claim 9, wherein said second detection
20 assembly includes a light receiver for receiving said second signal.

11. An assembly as set forth in Claim 10, wherein said light receiver being positioned below said platform.

12. An assembly as set forth in Claim 11, wherein said first detection assembly includes a light emitter for transmitting said first signal.

13. An assembly as set forth in Claim 12, wherein said first detection
5 assembly having a light receiver for receiving said first signal.

14. An assembly as set forth in Claim 13, wherein the part is a tire.

15. A method of determining the configuration of a part, comprising the steps of:

- orienting a first detection assembly with respect to a platform;
- transmitting a first signal from the first detection assembly onto the part
- 5 in the direction transverse to the platform;
- receiving the transmitted first signal around the part by the first detection assembly;
- evaluating the first signal received from the first detection assembly to determine a first configuration of the part;
- 10 orienting a second detection assembly with respect to the platform;
- transmitting a second signal from the second detection assembly onto the part in the direction transverse to the direction of the first signal;
- receiving the transmitted second signal by the second detection assembly around the part;
- 15 evaluating the second signal received from the second detection assembly to determine a second configuration of the part; and
- integrating the signals to determine a third configuration of the part and identifying the part being evaluated.

20 16. A method as set forth in Claim 15, wherein the step of integrating the signals to determine a third configuration of the part is further defined as determining a three dimensional configuration of the part.

25 17. A method as set forth in Claim 16, wherein the step of determining the first configuration of the part is further defined as determining a height of the part.

18. A method as set forth in Claim 17, wherein the step of determining the second configuration of the part is further defined as determining an inner diameter of the part.

5 19. A method as set forth in Claim 18, wherein the step of determining the second configuration of the part is further defined as determining an outer diameter of the part.

20. A method as set forth in Claim 19, wherein the step of orienting the first
10 detection assembly with respect to the platform is further defined as positioning a light emitter to transmit the first signal onto the part in the direction transverse to the platform;

21. A method as set forth in Claim 20, wherein the step of orienting the first
detection assembly with respect to the platform is further defined as positioning a light
15 receiver to receive the transmitted first signal around and through the part.

22. A method as set forth in Claim 21, wherein the step orienting the second
detection assembly with respect to the platform is further defined as positioning another
light emitter to transmit the second signal onto the part in the direction transverse to the
20 direction of the first signal.

23. A method as set forth in Claim 22, wherein the step of orienting the
second detection assembly with respect to the platform is further defined as
positioning another light receiver to receive the transmitted second signal around and
25 through the part.